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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/199,723	11/25/1998	GRAHAM W. GLASS	019778.0175	4018

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09/04/2002

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EXAMINER

FOURSON, GARY SCOTT

ART UNIT

PAPER NUMBER

2151

DATE MAILED: 09/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/199,723

Applicant(s)

GLASS, GRAHAM W.

Examiner

Gary S. Fourson

Art Unit

2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 April 2002.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

1. This final rejection is responsive to Amendment A (paper no. 5), with certificate of mailing dated April 23, 2002.

### *Claim Objections*

Claims 1-7 are objected to because of the following informalities: Applicant's "clean" version of claim 1 as amended contains indications of the amendment overcoming the 35 USC § 112 rejections set forth in the previous office action. Specifically, "agent" is bracketed and "object" is underlined as they are in the marked up version. Applicant must submit a clean version of claim 1 in the next response. Appropriate correction is required.

### *Claim Rejections - 35 U.S.C. § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Black et al. (US 5,325,524) in view of Shakib et al. (US 5,812,793, hereinafter "Shakib").**

With respect to claim 1, Black et al. teaches a system for locating mobile objects in a computer system. Black illustrates and provides detailed explanation for moving a first object [mobile objects, col. 2, e.g. object A.sub.2] from a current position [storesite, e.g. remote node 2] to a new position ["a second remote node" or "a third remote node," col. 5 lines 47-50] in a computer network, creating a forwarder object at the current position [second and third remote nodes contain TADs in the LII], placing information with respect to the new position at the forwarder object [TADs contain a forwarding address]. An LPC or RPC is sent from an invoking object [col. 5 lines 1-29; Fig.3 step 1] to "Node in Best Available TAD" [Fig 3 step 6]. At the remote node or "Node in Best Available TAD" shown in Figure 4, the RPC message is forwarded to another remote node by the LII according to the TAD object information indicating the forwarding address. Possibility 3 (7c) shows the path where the intended recipient [first

object] receives and processes the request. However, Black does not teach storage of the forwarding address utilizing the old version of the first object.

Shakib teaches a system for store and forward messaging between multiple copies of objects. An object being copied [moved] to a new location must be forwarded messages intended for the new object yet were delivered to the first object. Columns 7 and 8 teach utilization of a forwarder object in the form of “data sets.” The data set object contains a replica of the object as well as a list of all other replica locations in order to forward messages indicating changes to all copies of the data object. Therefore, it would have been obvious to an artisan of ordinary skill at the time the invention was made to utilize the storage of the forwarding addresses in the old versions of the objects replicated across a data processing system, because Shakib recognized that one-way store and forward communication between copies of objects allows data replication across foreign networks such as the Internet or other wide area networks [abstract].

As to **claim 5**, the forwarder is destroyed after routing the message to the first object [Through TAD updating, old TADs will be destroyed. See column 6 lines 36-63].

As to **claim 6**, wherein the current position and the new position are host address and port numbers [Column 1 lines 34-55 note that RPC requests contain information such as server address. Various port numbers are known to designate specific purposes such as requesting information or function execution.].

As to **claims 2-4**, Black teaches creating a reply message with information with respect to the new position [results returned with the best available TAD for future requests, col. 8 lines 17-20; see Fig. 4 step 15]. However, Black is silent on sending the reply message directly to the second object.

Black notes the results are returned, and, since the RPC may have to be forwarded through multiple nodes or hops as noted in col. 5 lines 47-50, it would be obvious to conclude that the results are returned directly. As to sending a subsequent message created at the second object to the first object at the new position, wherein the subsequent message is sent directly to the first object, future request messages would use the updated TAD to directly contact the desired object and receive the desired results as shown in path 3 of Fig. 3 [step 7c].

As to **claim 7**, Black is silent on the lifespan of the TAD objects in the IIL layer. However, it would have been obvious to an artisan of ordinary skill at the time the invention was made that the forwarder object [TAD] would only be required as long as the first object exists, because the forwarder object would obviously not be required after the deletion of the intended recipient object.

***Response to Amendment***

2. Section 112: In light of Applicant's arguments of record, the **35 USC § 112** rejections set forth in the previous office action are withdrawn.

***Conclusion***

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication should be directed to **Gary Fourson** at **(703) 305-4392**.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to (gary.fourson@uspto.gov).

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly

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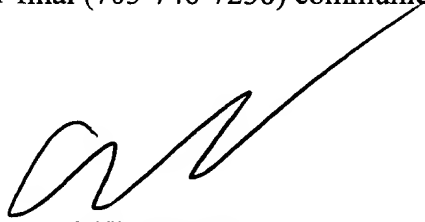
set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

The fax numbers for Official (703-746-7239), to be intended for entry into the application, Non-Official/Draft (703-746-7240), or After-final (703-746-7238) communications may be utilized for expedited transactions.

gsf

August 26, 2002



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